

VIBURNUM WURDACKII,  
A NEW PERUVIAN SPECIES

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Most botanists will concur that an immense need exists for accelerated exploration, collecting, and systematic and ecological studies in Latin America. South America, Central America and Mexico have long been recognized as major centers of diversity and evolution within the genus *Viburnum* (Caprifoliaceae). The studies on South American *Viburnum* (Killip and Smith 1929, 1930; Killip 1937), although adequate when published for herbarium material then extant, obviously cannot be expected now to be definitive. A modern, critical revision of the Andean taxa is much needed. This fact is greatly emphasized as the floras of remote, unexplored, and previously uncollected areas are gradually studied concurrently with the development of modern methods and concepts in systematics and ecology.

Whereas the taxa of *Viburnum* from two other great centers of heterogeneity of Eastern Asia and North America are rather thoroughly collected and taxonomically documented, the *Viburnum* taxa of Latin America are essentially unknown in the broad sense of taxonomic relationships. Increased field work in Latin America and *ne plus ultra* analysis of all collections of *Viburnum*, as well as of other genera, will without doubt yield new taxa, define and solve outstanding problems of plant multiformity and evolution in the tropics, and interpret inter-taxa affinities.

The Peruvian taxon of *Viburnum* described here is based on analysis of two collections discovered by the author in several herbaria, while surveying *Viburnum* for projected revisionary and monographic treatment. The line drawing was prepared by Mrs. Regina O. Hughes, formerly illustrator for New Crops Division, U.S. Department of Agriculture, Beltsville, Maryland. The photograph of the inflorescence was provided by Dr. J. J. Wurdack from his collection of field photographs.

**Viburnum wurdackii** Dudley, sp. nov.

Quae species affinis videtur *V. weberbaueri* Graebn. (= *V. reticulato* Ruiz & Pavon ex Oerst. — *sensu lato*) sed foliis sinuato-undulatis (nec valde dentatis), late ovato-ellipticis, maioribus, subtus toto densis fulvo-tomentosis implexis e pilis stellatis dimorphis compositi, inflorescentiis radiis pedunculo maioribus et robustiore, floribus multum congestioribus sessilibus vel interdum subsessilibus, corolla per anthesin majore 5-8 mm. diametro dense pubescentibus e pilis stellatis tecti, lobis margine valde et aequaliter papilloso apice ovato-spathulatis, calycis lobi rotundi margine ciliolati, ovario calyce corollaque toto densis pilis stellatis fulvis implexis tectis, fructibus immaturis pubescentibus e pilis stellatis densis compositis differt.

Frutex vel arbor parva, 3-5 m. alta; ramis, ramulis, foliis subtus, petiolis, inflorescentiis, ovariiis, calycinis lobisque dense crasseque luteolis ad fulvis indumento obsitis. Folia subcoriacea, estipulata, late ovato-elliptica vel raro parum obovata, (6-) 10-16 (-20) cm. longa, 4-9 (-11) cm. lata, apice acuta vel rotundata, mucronata, basi subtruncata ad rotundata, margine sinuato-undulata, supra viridia sed semper cum pilis stellatis minutis aequae dispersis disjunctis tecta, subtus pallidiora densiore fulva dimorpha pubescentia e pilis stellatis appressis interspersis pilis stipitatis composita, nervis primariis 4, subtus prominente elevatis (sicut costa media), supra uterque levissime impressis, nervis secundariis transversis subtus distincte elevatis, supra uterque levissime impressis; petioli 1-2 cm. longi, canaliculati, dense pubescenti. Cyma corymbiformis, 7-12 (-20) cm. longo et lato, pilis luteolis vel fulvis crebris appressis, pedunculo 1-6 cm. longo, crasso, radii primarii 3-6, usque ad 6 cm. longi; bracteae bracteolaeque plerumque minutissimae anguste obovatae cauduae pubescentiae; flores numerosi congesti, sessiles vel interdum subsessiles in radiis ordinis tertii siti basi bracteis bracteolisque oppositis suffulti; ovarium 1-2 mm. longum, campanulato-cylindricum densim pubescens; calycis lobi rotundo-orbicularis, 0.5-0.6 mm. longi, densim pubescentes, margine ad apicem ciliolati; corolla alba, rotata, 5-8 mm. diametro, 2.5-4 mm. longa, extus pubescens, lobis rotundato-spathulatis pariter aequaliter apiliosis; stamina corolla superanta, corollae basi affixa, filamentis 3-4.5 mm. longis, antheris flavis, oblongo-ovatis, c. 1 mm. longis. Drupa immatura, viridia, 3-4 mm. longa, 2-3 mm. lata, elliptica, indumento denso e pilis stellatis tecta, apice praecipue 5-10 pilis fasciculatis vel simplicibus conspersa, calyce styloque persistentibus coronata, stylo cylindrico, c. 0.5-0.8 mm. longo, calycem paulo superante, stigmate capitato trilobulato.

TYPE LOCALITY: Peru, Molinopampa-Diosan pass in Provincia de Chachapoyas, Departamento de Amazonas; the type is *J. J. Wurdack* 1648.

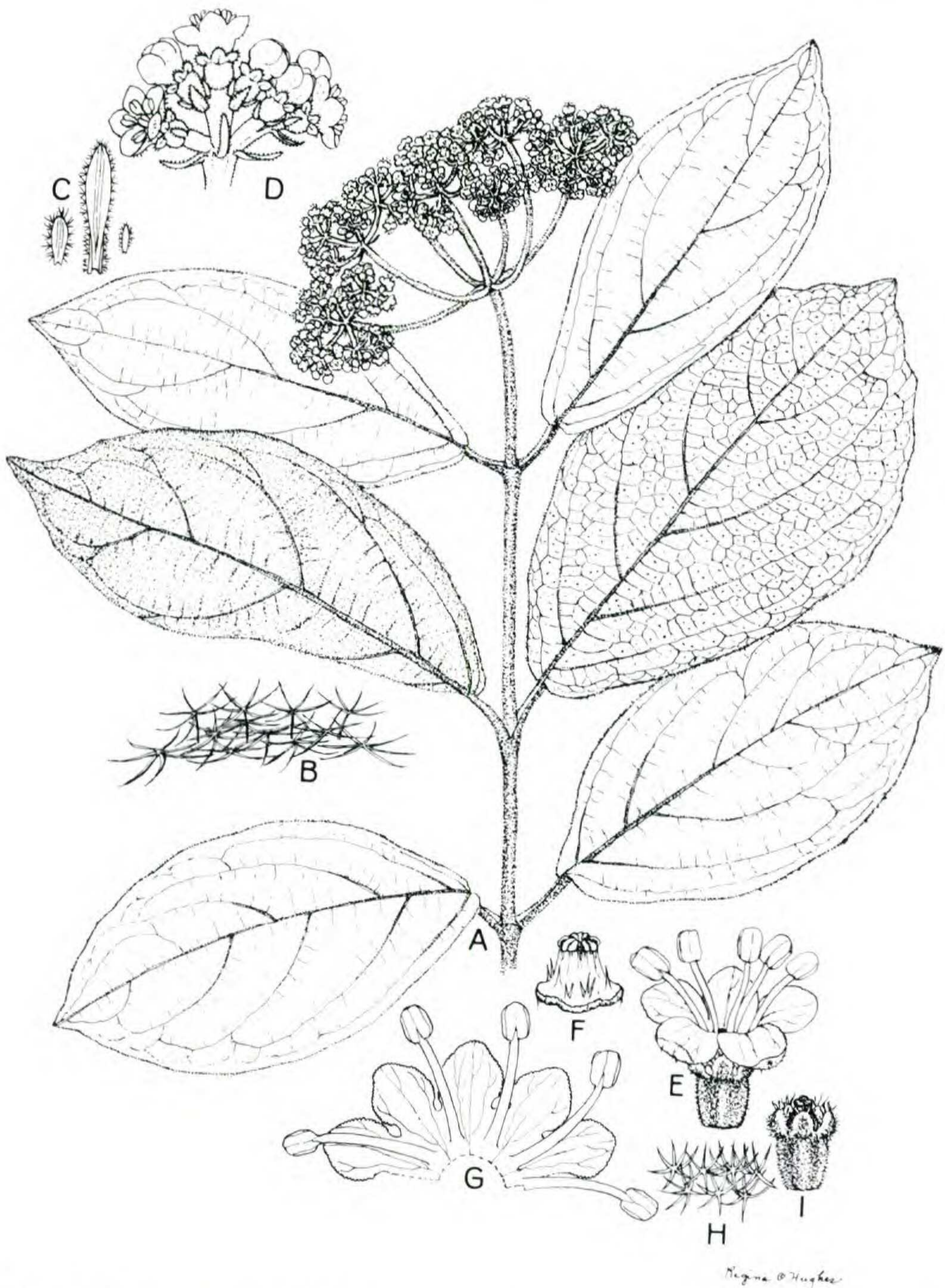


Fig. *Viburnum wurdackii* Dudley. Holotype: *J. J. Wurdack* 1648. A. Habit  $\times 1$ , second leaf from bottom, right side shows upper surface; second leaf from bottom, left side shows lower surface. B. Indumentum on leaf lower surface of intermeshing appressed stellate hairs and interspersed stipitate stellate hairs,  $\times 40$ . C. Bracteoles subtending secondary and tertiary rays of inflorescence, size is variable according to position,  $\times 4$ . D. Cluster of flowers on tertiary

DISTRIBUTION: Presently known only from two Peruvian collections in Departamento Amazonas. It is recorded as a white-flowered shrub or tree 3-5 m. tall, growing in moist scrub forest at 1500 m. (*F. Woytkowski*) and 2700-3100 m. (*Wurdack*).

PERU. PROVINCIA DE CHACHAPOYAS, Departamento de Amazonas: south side of Molinopampa-Diosan pass, 8 Aug. 1962, *J. J. Wurdack* 1648 (US, holotype; NY, isotype); Departamento de Amazonas: Mendoza, 6 Aug. 1963, *F. Woytkowski* 8124 (GH, MO).

The new species described above resembles *Viburnum weberbaueri* Graebn. (Bot. Jahrb. Syst. 37: 433. 1906) in some respects, but it is clearly distinguished as follows. The leaves of *V. wurdackii* Dudley are larger, broadly ovate to elliptic, with sinuate to undulate margins and with dimorphic indumentum on the lower surface composed of stipitate stellate hairs interspersed with heavily matted, intermeshing and appressed stellate hairs.

In *Viburnum weberbaueri*, the leaves are mostly obovate or oblong-ovate, and dentate or denticulate, at least above the middle. The stellate hairs on the lower leaf surface are of variable density and are consistently stipitate, and the indumentum on the upper leaf surface is much sparser than that of *V. wurdackii*. Accordingly, the upper leaf surface of *V. weberbaueri* often appears glabrous. The inflorescence of *V. wurdackii* with 3-6 primary rays and heavier, more robust rays and peduncle is larger than that of *V. weberbaueri* with 5-7 primary rays. A significant difference is noted in the bracts subtending the rays of the inflorescence. Those of *V. weberbaueri* are oblong-lanceolate, retained through anthesis and measure up to 2 cm. long (subtending the primary rays). The bracts of *V. wurdackii* are early caducous and at most measure 0.8 mm. long. The flowers of *V. wurdackii* are usually sessile, very

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inflorescence rays showing disposition of bracteoles,  $\times 5$ . E. Flower at anthesis,  $\times 10$ . F. Style and top of ovary,  $\times 20$ . G. Corolla spread out,  $\times 10$ . H. Dense indumentum of stellate hairs from surface of ovary,  $\times 40$ . I. Young ovary shortly after corolla has dropped,  $\times 10$ .

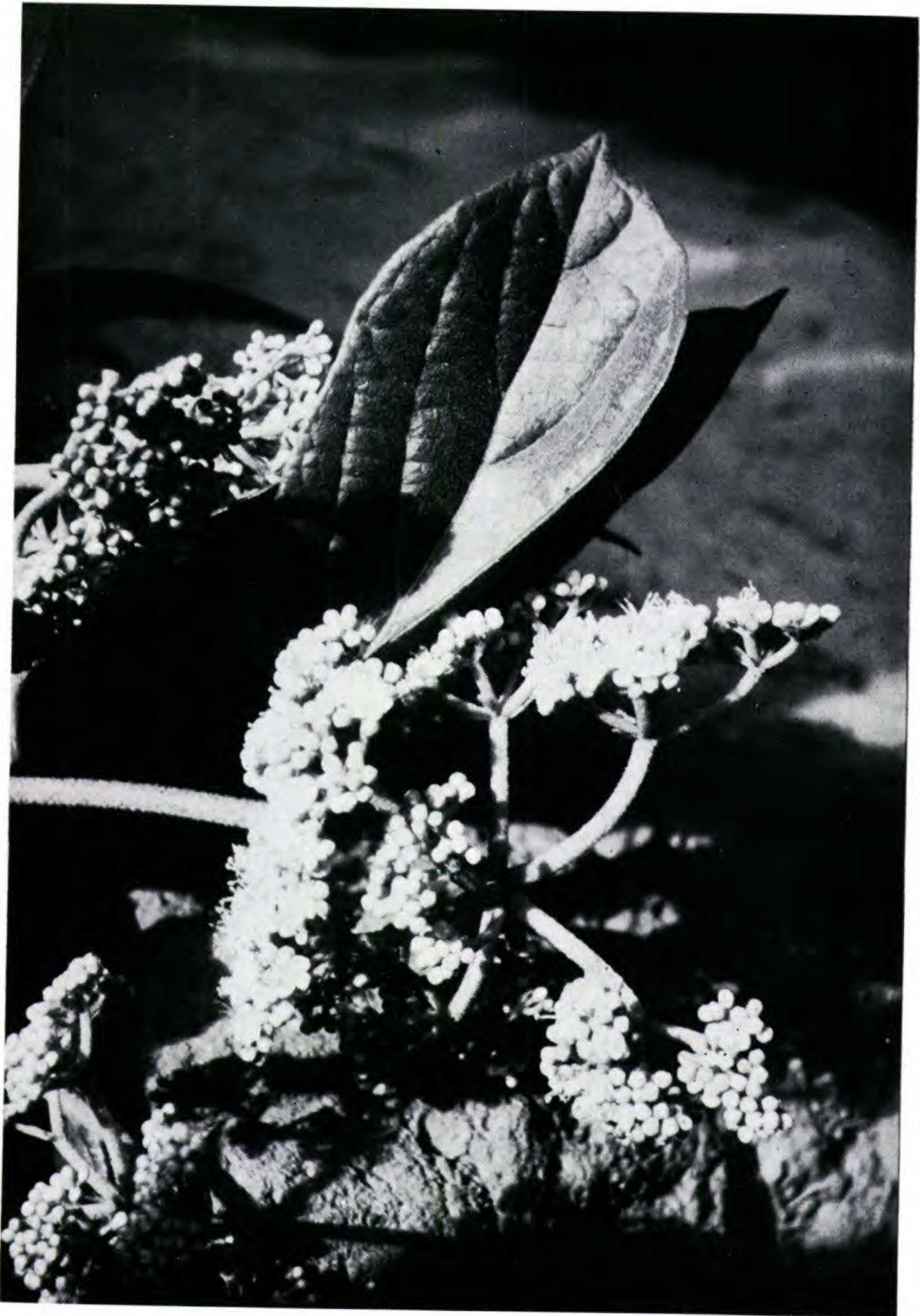


Plate 1428

Field photograph of inflorescence of *V. wurdackii*,  $\pm 3/5$  normal size. (Holotype: *J. J. Wurdack* 1648).

densely congested, and larger than the short pedicelled flowers of *V. weberbaueri*. The corollas of *V. weberbaueri* are glabrous, or at most with few (three or four) stellate hairs, lobes are smooth, or weakly and unevenly papillose. The corolla lobes of *V. wurdackii* are densely pubescent (of more than 20 intermeshing stellate hairs), and strongly and evenly papillose. The calyx lobes of *V. weberbaueri* are acute and almost glabrous (except of apical hairs) in contrast with the rounded or obtuse, densely pubescent and ciliate calyx lobes of *V. wurdackii*. The ovaries of *V. weberbaueri* are glabrous or occasionally sparsely pubescent, with few readily displaced furcate and stellate hairs; those of *V. wurdackii* are densely pubescent with intermeshing stellate hairs that persist on the fruit at least until half mature.

Unfortunately, mature fruit was not present in the specimens examined. Only the *F. Woytkowski* specimen from MO has immature fruit. The duplicate (GH) did not have fruit, nor did the *J. J. Wurdack* specimens. The plant is named for Dr. J. J. Wurdack, the original collector of the new species who led the Smithsonian Institution Peruvian Expedition in 1962, and is internationally recognized for his investigations of the Melastomataceae.

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